

**EXHIBIT 4**

**DESC APPLICATION**

**DOCKET NO. 2019-326-E**



# Generator Interconnection Reform Strategy

April 29, 2021

# Stakeholder Meeting Agenda

Topic	Presenters	Time
Introductions & Logistics	Dominion Energy	9:00 – 9:10
Overview of Dominion Energy's Queue Reform Initiative, High-level Agenda	Dominion Energy	9:10 – 9:30
DISIS Cluster Study Processes	Dominion Energy	9:30 – 10:15
Break		10:15 – 10:30
Transitional Process & Informational Study	Dominion Energy	10:30 – 11:15
Cost Allocation Examples	Guidehouse	11:15 – 11:30
Open Discussion and Next Steps	All	11:30 – Noon

# Act 62 Review Of Standards For Interconnection

## Two Phases

- **Phase 1 – Cluster Studies** (applies to both SC State Standard and FERC OATT)
  - Establish an alternative queue process for studying certain large generators requesting interconnection. To be used for both FERC and State jurisdictional projects. (3 stakeholder meetings)
- **Phase 2 – Everything else** (applies to only SC State Standard)
  - Revise the other portions of the SCGIP. According to the September 15, 2020, filing, these revisions would be proposed by the Duke Utilities, DESC, the Solar Intervenors, and potentially other interested parties, after a series of stakeholder meetings (yet TBD) to seek consensus on proposed reforms.

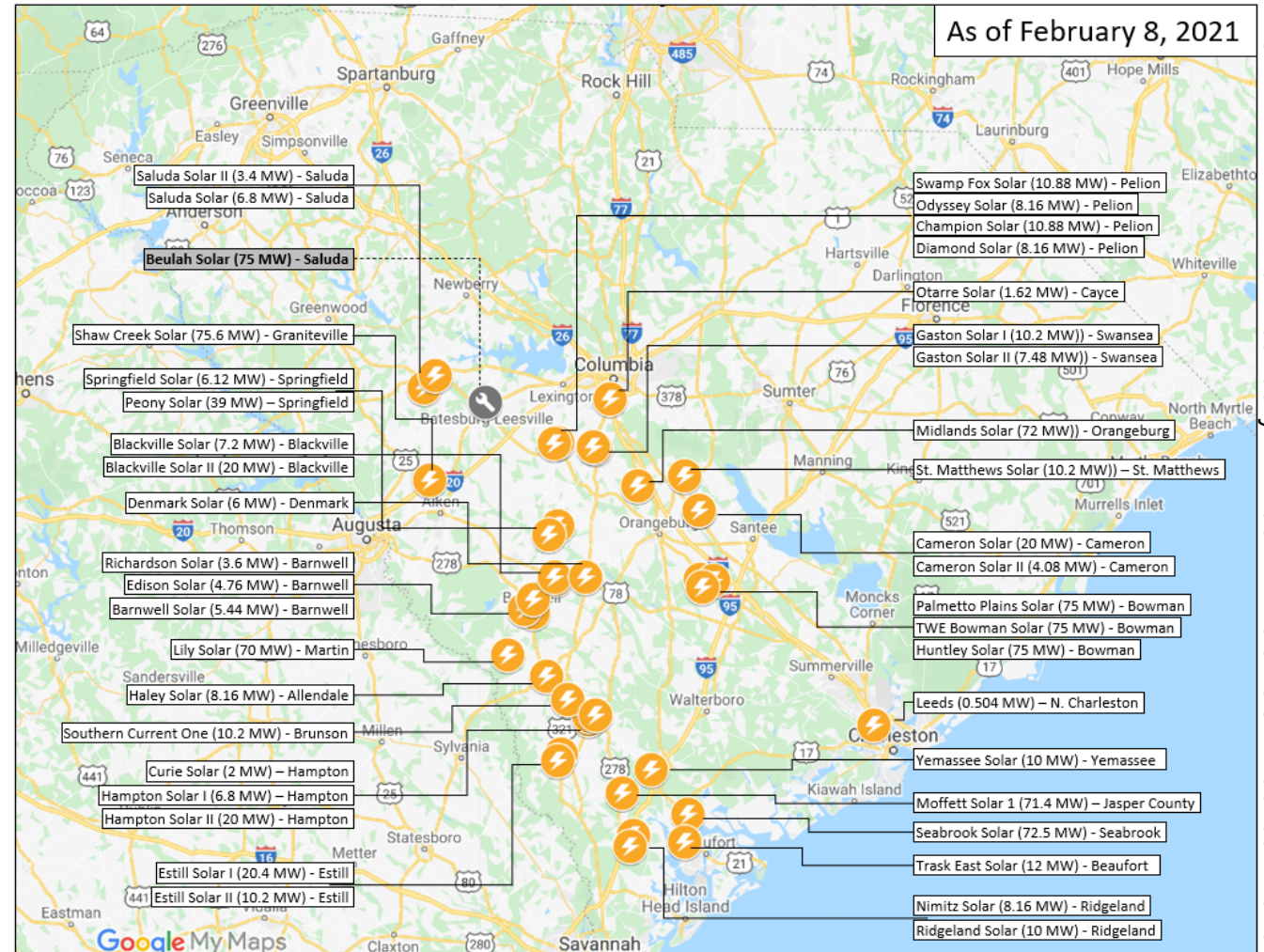
# Welcome – Implement Cluster Study option

## Stakeholder Meeting 3 of 3

- DESC internal groups working on this effort include:
  - Transmission Planning
  - Tariff Administration
  - Renewables
  - Regulatory Affairs
  - Legal
- DESC has engaged Guidehouse to help with evaluation/design of changes and with Stakeholder meetings.
- DESC invited wide range of stakeholders: Interconnection Customers from State and FERC queue, active facility owners >20 kW, intervenors in SCPSC Docket 2019-326-E, FERC transmission customers and select others like the SCSBA.
- Proposed language has been distributed. Check email inbox.

# Utility - Scale Solar-898 MW

- 40 Solar Farms In-Service
  - 14 Transmission
  - 27 Distribution
  - 2 Solar Farms under Construction



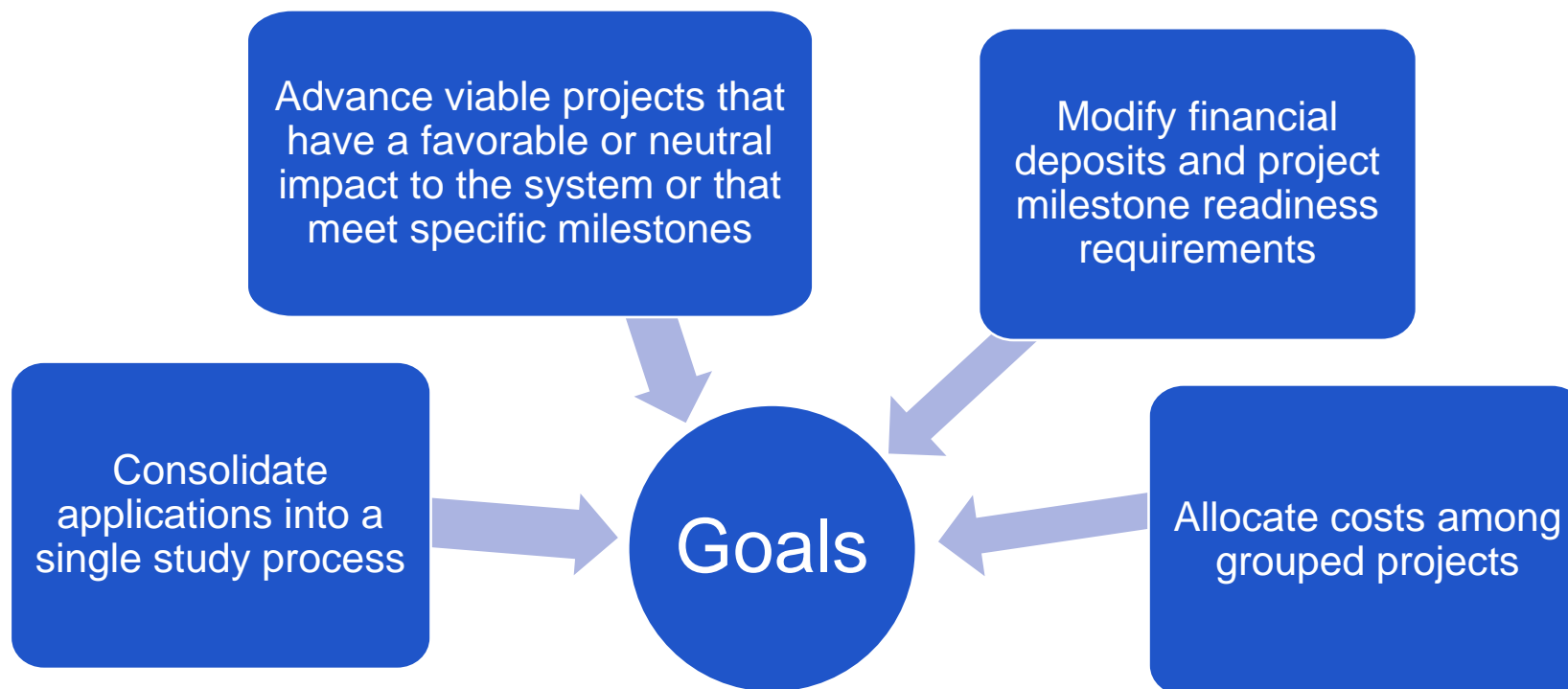
# Current Processes

- DESC administers:
  - Small Generator Interconnection Procedure (SGIP – FERC jurisdictional)
  - Large Generator Interconnection Procedure (LGIP – FERC jurisdictional)
  - South Carolina Generator Interconnection Procedure (SCGIP – State jurisdictional)
- The generator's intent for its output dictates the jurisdiction
- DESC utilizes a serial study process based on first-in, first-studied, regardless of jurisdiction
- The project that triggers an upgrade is responsible for the upgrade
- DESC has processed 250 projects 1 MW or less in size
- DESC has received 284 projects greater than 1 MW in size (total 12,750 MW)
  - 71 projects (total 7,012 MW) remain in process
  - 58 projects (total 826 MW), have executed interconnection agreements and later withdrawn from the queue

# Phase 1 - Proposed Improvements

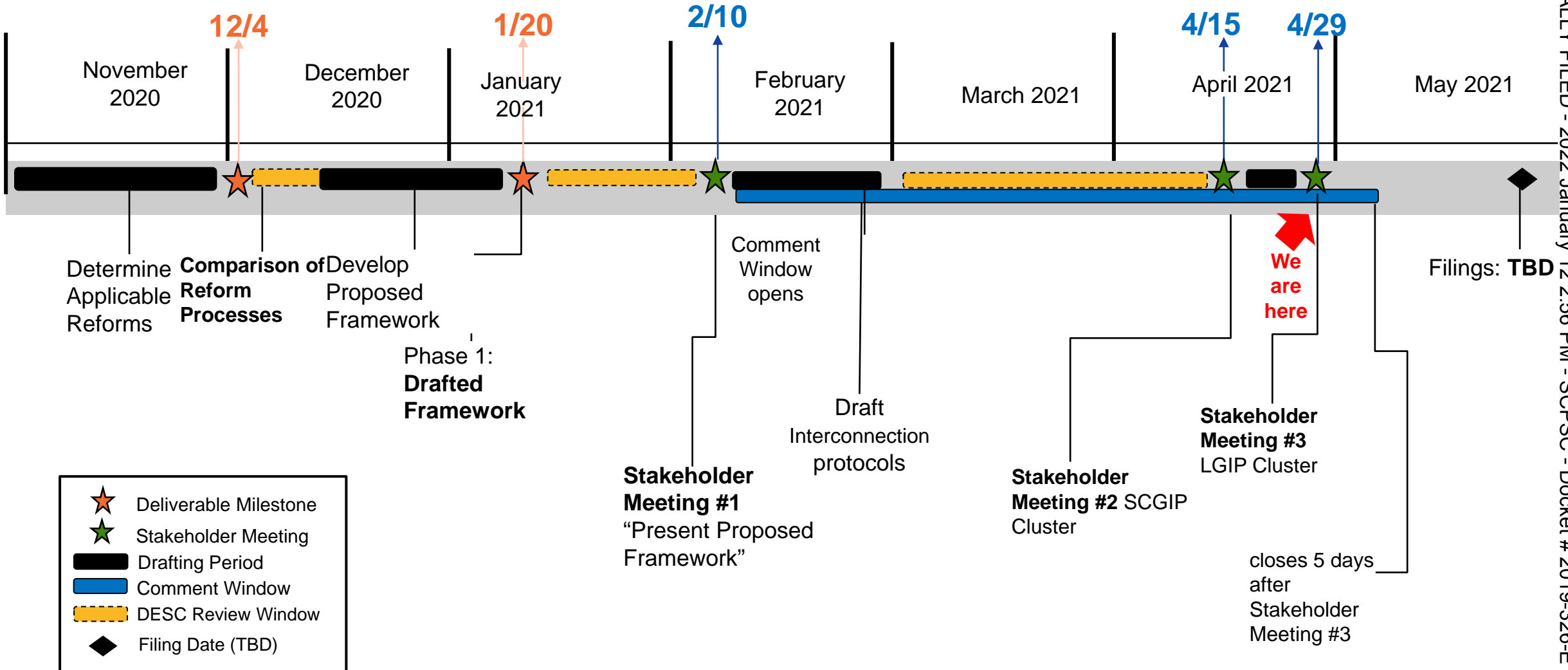
## Cluster Studies

- Dominion Energy South Carolina, Inc. is proposing a Cluster Study process for its generation interconnection process.





# 2020-2021 Queue Reform Stakeholder Process Timeline\*



\*This timeline may be adjusted based on filing requirements

# **Definitive Interconnection Study Process**

# Definitive Interconnection Study Process Overview

One Definitive Interconnection System Impact Study (DISIS) cluster study per year

Study steps:

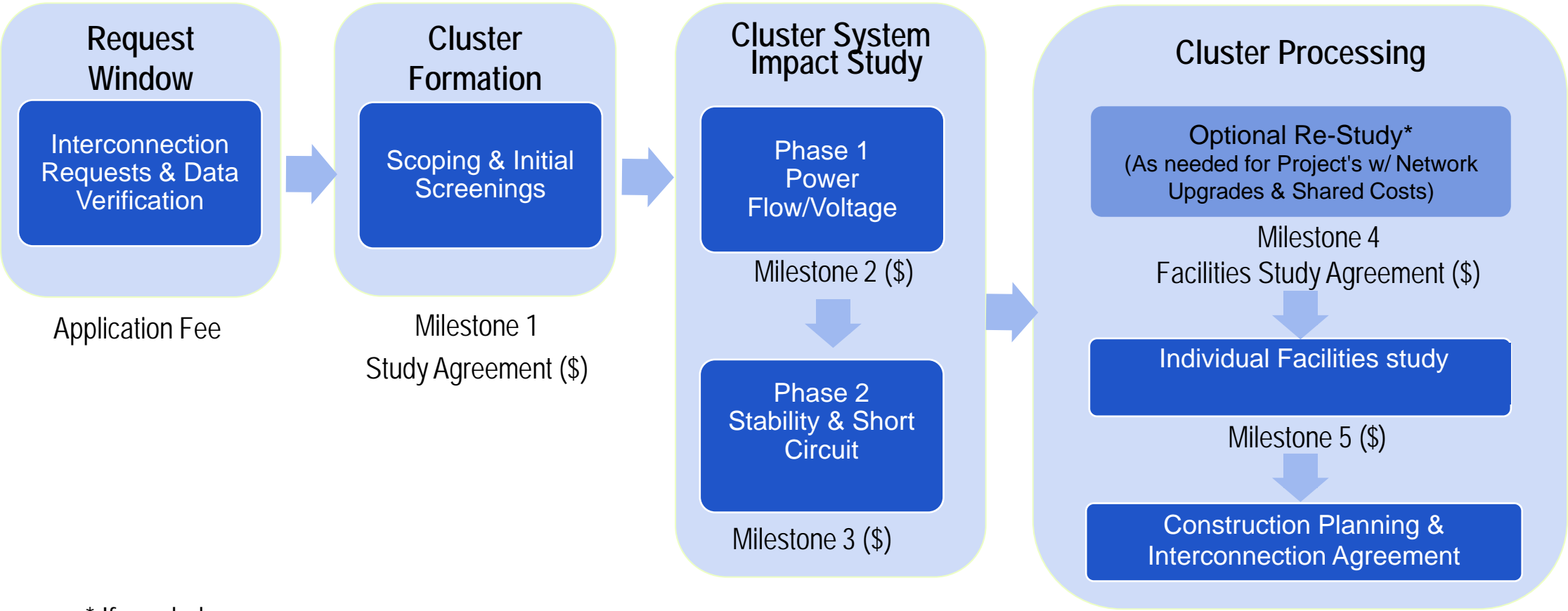
1. Interconnection Request Window
2. Customer Engagement Window
3. Study process
4. LGIA



# Definitive Interconnection Study Process

**Goal:** Timely interconnection of ready projects

1. First-ready, first-served Definitive Interconnection System Impact Study Process (DISIS) with increasing milestones required to stay in the queue



\* If needed

# Site Control

- Site Control may be demonstrated by documentation establishing:
  1. Ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Customer's Interconnection Facilities; or
  2. An option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Facilities; or
  3. Any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility.
- Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects
- Specifications for acceptable site size for the purposes of demonstrating Site Control will be posted on Transmission Provider's OASIS website
- IC may propose alternative specifications for site size to those posted on OASIS for Transmission Provider's approval
- In the event Transmission Provider and the IC cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in State of service) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement
- IC may provide a cash deposit equal to \$20,000 plus \$500/MW in lieu of Site Control to enter Phase 1. A deposit in lieu of Site Control is not accepted for later Phases

# Study Deposit Amounts

Size of Project Associated With Interconnection Request	Amount of Deposit
< 20 MW	\$20,000 + \$1.00/ kW of Generation Facility Capacity*
≥ 20 MW and < 50 MW	\$35,000 + \$1.00/ kW of Generation Facility Capacity*
≥ 50 MW < 80 MW	\$50,000 + \$1.00/ kW of Generation Facility Capacity*
≥ 80 MW < 200 MW	\$150,000
≥ 200 MW	\$250,000

\* Or Interconnection Service requested, if the Interconnection Service requested is less than the Generation Facility Capacity

- The Interconnection Customer must hold exclusive site control to construct the entire Generating Facility and all required Interconnection Facilities to the Point of Interconnection to the Utility's System.

# Request Window - Interconnection Requests & Data Verification

## Enter

- Study Deposit (as shown in slide 12)
- Interconnection Request and technical specs
- Site control (as shown in slide 11)
- Type of service requested
- Point of interconnection
- Application fee \$5,000
- Requested capacity of the generating facility and requested interconnection service amount if less than generating facility capacity

## During

- DESC shall notify the Interconnection Customer (IC) within 5 Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request.
- The IC shall provide DESC the additional requested information needed to constitute a valid request within 10 Business Days after receipt of such notice.
- At any time, if DESC identifies issues with technical data provided by the IC, IC and DESC shall work expeditiously and in good faith to remedy any data issues

## Exit

- DESC shall post on the Utility's website a list of Interconnection Requests for that Cluster, identifying for each Interconnection Request:
  - I. the Cluster the Interconnection Request is in;
  - II. the location by county;
  - III. the distribution or transmission substation or transmission line or lines where the interconnection will be made;
  - IV. The type of Generating Facility to be constructed including fuel type such as wind, natural gas, coal, or solar.

# Cluster Formation - Scoping & Initial Screenings

## Enter

- Scoping Meeting within 20 Business Days of the end of the Verification Window
- Discuss and determine primary POI
- IC can select an alternate POI

## During

- DESC shall host an open Scoping Meeting, for all Interconnection Requests received. If requested by the IC, DESC shall also hold individual customer specific Scoping Meetings, which must be requested no later than fifteen (15) business days after the close of the DISIS Request Window
- Discussion of alternative interconnection options, to exchange information, including any transmission data that would reasonably be expected to impact such interconnection options, to preliminarily analyze such information; and to determine the potential feasible Point(s) of Interconnection

## Exit

- At the end of the Customer Engagement Window, all Interconnection Requests that meet the foregoing M1 readiness requirements and that have an executed DISIS Agreement shall be included in that DISIS Cluster.
- DESC shall determine if the information contained in the Interconnection Request is adequately sufficient to start the Definitive System Impact Study by the close of the Customer Engagement Window.



# Allocation of Study Costs for DISIS Cluster

- The study cost allocation to each IC in a specific Cluster, shall be
  1. Ten percent (10%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and
  2. Ninety percent (90%) to IC(s) on a pro-rata basis based on requested megawatts included in the applicable Cluster.
- If IC's exit the cluster prior to Phase 2, DESC will determined the cost of preparing for and completing the DISIS prior to beginning Phase 2
  - DESC then will separately determined each remaining IC cost for the remainder of the DISIS.
- For a Phase 3 re-study DESC will allocate the cost of the re-study amongst the IC's included in the re-study.
  - If an IC proposes nonmaterial changes to the IR requiring a limited re-study, the cost shall be directly assigned to the requesting IC.
- The facilities study shall continue to be an individual study and the cost for each facility study will be directly assigned to the IC associated with the study.

# Distribution of DISIS Withdrawal Penalty

- Any Withdrawal Penalty revenues shall be used to fund generation interconnection studies.
- Withdrawal Penalty revenues shall first be applied, in the form of a bill credit, to not-yet-invoiced study costs for other IC(s) in the same cluster, and to the extent that such studies are fully credited, shall be applied to study costs of future clusters in Queue order
- Withdrawn IC(s) shall not receive a bill credit associated with Withdrawal Penalties.
- Distribution of Withdrawal Penalty revenues to a specific study shall not exceed the total actual study costs
- Specifically, the Withdrawal Penalty revenue distribution to each IC in a specific Cluster, shall be
  1. Ten percent (10%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and
  2. Ninety percent (90%) to IC(s) on a pro-rata basis based on requested megawatts included in the applicable Cluster
- Distribution of Withdrawal Penalty revenue associated with Readiness Milestone 5 shall not be distributed to the remaining customers in that cluster until all customers in that cluster have reached Commercial Operation and thereafter shall be distributed as described above
- DESC shall not change the distribution of Withdrawal Penalty revenue without authorization by the Commission
- If the IC provided a deposit in lieu of Site Control for Phase 1 and withdraws before entering Phase 2, the Withdrawal Penalty is increased by an amount equal to \$20,000 plus \$500/MW, which is in addition to the amounts described in slide 27.

## **DISIS Withdrawal Without Penalty**

- (1) The withdrawal does not negatively affect the timing or cost to interconnect of equal or lower queued projects; or
- (2) The cost responsibility identified for that Interconnection Customer in the current study report associated with new Network Upgrades to the Transmission Provider's System increased by more than twenty-five percent (25%) compared to the costs identified in the previous report; or
- (3) If the customer withdraws after the Interconnection Facilities Study report is published and before providing the final Milestone Payment, and the cost responsibility for that Interconnection Customer identified in the Interconnection Facilities Study report increases by more than one hundred percent (100%) compared to the prior report.

# DISIS - Phase 1

## Enter

- Execute a DISIS Agreement
- Provide initial security equal to 1 times study deposit amount
- Provide evidence satisfactory to the Utility of either an initial Readiness Milestone (M1), or additional security in the form of an irrevocable letter of credit or cash in lieu of the M1 Readiness Milestone
- A contract with term of sale not less than 5 years or inclusion in Resource Plan

## During

- DESC complete the Transitional Cluster Study Phase 1 consisting of a **power flow and voltage analysis**
- Identify the interconnection facilities and system upgrades that are expected to be required as a result of the interconnection request(s)
- Non-binding good-faith indicative level estimate of cost responsibility and a non-binding good-faith estimate time to construct

## Exit

- DESC will hold customer engagement window and will host an open stakeholder meeting (Phase 1 report meeting)
- DESC will notify distribution-level IC(s), who will not cause or contribute to network upgrades, that DESC will complete an individual distribution-level system impact study.
- After the issuance of the individual distribution-level system report, the IC would proceed to the Facility study process.
- DESC will publish the results of the DISIS Phase 1 results

# DISIS - Phase 2

## Enter

- Provide initial security equal to 1 times study deposit amount
- Provide evidence satisfactory to the Utility of either an initial Readiness Milestone (M2), or additional security in the form of an irrevocable letter of credit or cash in lieu of the M2 Readiness Milestone
- A contract with term of sale not less than 5 years or inclusion in Resource Plan
- Provisional Large Generator Interconnection Agreement accepted for filing at FERC

## During

- DESC shall complete an updated power flow/voltage analysis (if necessary), **stability analysis and short circuit analysis**
  - Identify the interconnection facilities and system upgrades that are expected to be required as a result of the interconnection request(s)
  - Non-binding good-faith indicative level estimate of cost responsibility and a non-binding good-faith estimate time to construct

## Exit

- DESC will hold customer engagement window and will host an open stakeholder meeting (Phase 2 report meeting)
- DESC shall let the IC(s) know if they cluster will go to a re-study or facility study phase.
- If all IC(s) in the cluster provide M3 and no IC(s) withdraw, the DISP will advance to the facilities study.
- If one or more IC(s) withdraws and DESC determines that a re-study is not needed. DESC will provide an updated phase 2 report of such determination.
- If one more IC(s) withdraws and DESC determines that a re-study is needed. DESC will continue with such study until DESC determines that no further re-studies are required.
- DESC will publish the results of the DISIS Phase 2 results

# DISIS – Phase 3 Re-Study (If Needed)

## Enter

- DESC determined re-study is needed
- Provide evidence satisfactory to the Utility of either an initial Readiness Milestone (M3), or additional security in the form of an irrevocable letter of credit or cash in lieu of the M3 Readiness Milestone
- A contract with term of sale not less than 5 years or inclusion in Resource Plan
- Provisional Large Generator Interconnection Agreement accepted for filing at FERC

## During

- May consist of updated power flow/voltage analysis, stability analysis, and/or short circuit analysis if necessary, for the IC(s) remaining in the Cluster
- Identify the interconnection facilities and system upgrades that are expected to be required as a result of the interconnection request(s)
- Non-binding good-faith indicative level estimate of cost responsibility and a non-binding good-faith estimate time to construct

## Exit

- DESC will hold customer engagement window and will host an open stakeholder meeting (Phase 3 report meeting)
- IC(s) provide an updated Readiness Milestone 3 (M3).
- DESC will publish the results of the DISIS Phase 3 results

# Cluster Processing - Facilities Study

## Enter

- An executed Facilities Study Agreement (executed and including all required data identified therein)
- Provide initial security equal to 1 times study deposit amount
- Provide evidence satisfactory to the Utility of either an initial Readiness Milestone (M4), or additional security in the form of an irrevocable letter of credit or cash in lieu of the M4 Readiness Milestone
- A contract with term of sale not less than 5 years or inclusion in Resource Plan
- Provisional Large Generator Interconnection Agreement accepted for filing at FERC

## During

- Specify and provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed as a result of the interconnection request(s)
- Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities
- DESC will issue the draft interconnection facilities study report

## Exit

- IC(s) may submit comments to DESC. DESC shall issue the final interconnection facilities study report after receiving the IC(s) comments or an IC(s) statement of no comments
- DESC may extend if they need to perform additional analysis or make other significant modifications
- If requested DESC shall provide the IC(s) supporting documentation in the preparation of the report
- DESC will publish the results of the Facility study
- DESC after providing a draft of interconnection facilities study report to the IC, DESC and IC shall meet to discuss results
- DESC will tender a draft LGIA

# Cluster Processing - LGIA

## Enter

- Provide evidence that continued site control exists
- M5, 9 times study cost. If study cost are not known, they shall be based on the study deposit. The M5 amount shall be updated once study costs are known

## During

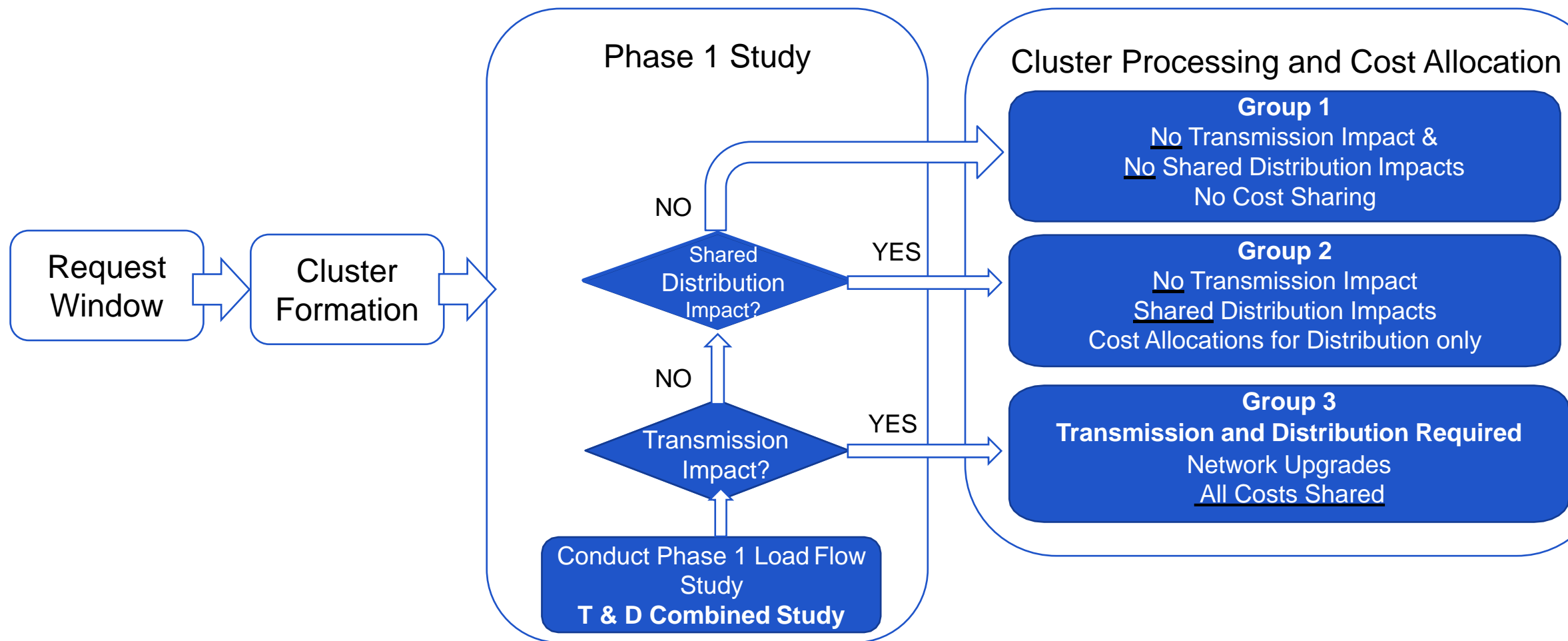
- IC shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election
  - The execution of a contract for the supply or transportation of fuel
  - The execution of a contract for the supply of cooling water
  - Execution of a contract for the engineering for, procurement of major equipment for, or construction
  - Execution of a contract (or comparable evidence) for the sale of electric energy or capacity
  - Or Application(s) for applicable air, water, or land use permit(s).

## Exit

- M5 is refundable
- IC shall either:
  - Execute two originals of the tendered LGIA and return them to Transmission Provider
  - Request in writing that Transmission Provider file with FERC an LGIA in unexecuted form
- DESC will report LGIAs in its EQRs and file LGIAs with FERC as necessary.



# Cost Allocation

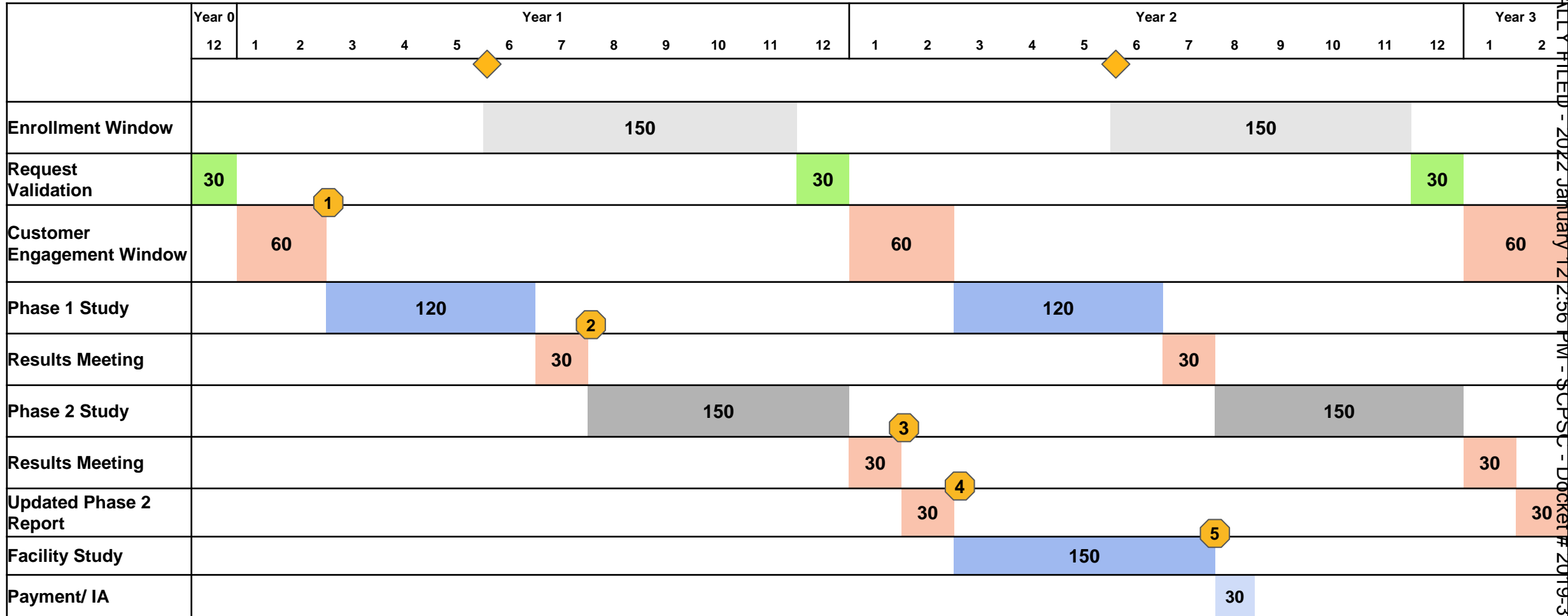


# Interconnection Reform Mechanisms

## Cost Allocation for both Transmission and Distribution

	Transmission	Distribution
<b>Network Upgrade Cost (Pro rata basis)</b>	<ul style="list-style-type: none"> <li>All transmission line and transformer upgrades shall be allocated using the distribution factor analysis.</li> <li>Voltage support shall be allocated using a voltage impact analysis</li> <li>Power Circuit Breaker upgrades shall be allocated proportionally based on the short circuit current contribution of each request</li> </ul>	<ul style="list-style-type: none"> <li>Costs of Distribution Upgrades shall be allocated or assigned to each IC based upon the proportional impact of each individual Generating Facility in the Cluster Study based upon the need for the Distribution Upgrade</li> <li>Distribution line work (e.g., reconductoring) shall be allocated to Generating Facilities contributing to the Upgrade on a per MW basis, based upon location (% of Upgrade).</li> </ul>
<b>Interconnection Station Upgrades (Per Capita)</b>	<ul style="list-style-type: none"> <li>Interconnection Station Upgrades, including all switching stations, shall be allocated based on the number of Generating Facilities interconnecting at an individual station on a per capita basis</li> <li>If multiple ICs are connecting through a shared facility(ies) those ICs shall be considered one IC</li> </ul>	<ul style="list-style-type: none"> <li>All other Distribution Upgrades shall be allocated on a per capita basis (i.e., on a per Interconnection Request basis) based upon the number of projects on the feeder or substation contributing to the need for the Upgrade.</li> </ul>

# Proposed Future State: Cluster Study Timeline-No Phase 3

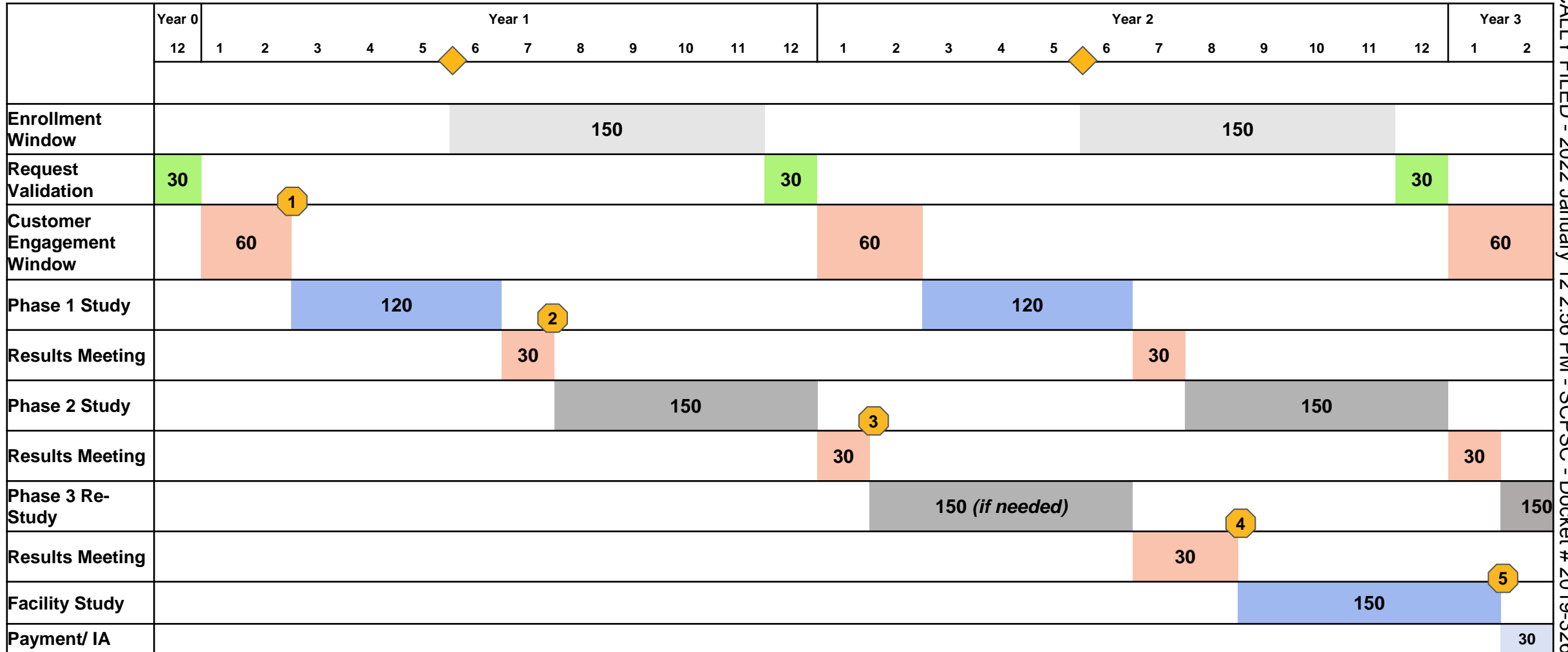


Milestones



New Cluster Starts

# Proposed Future State: Cluster Study Timeline-With Phase 3



Milestones

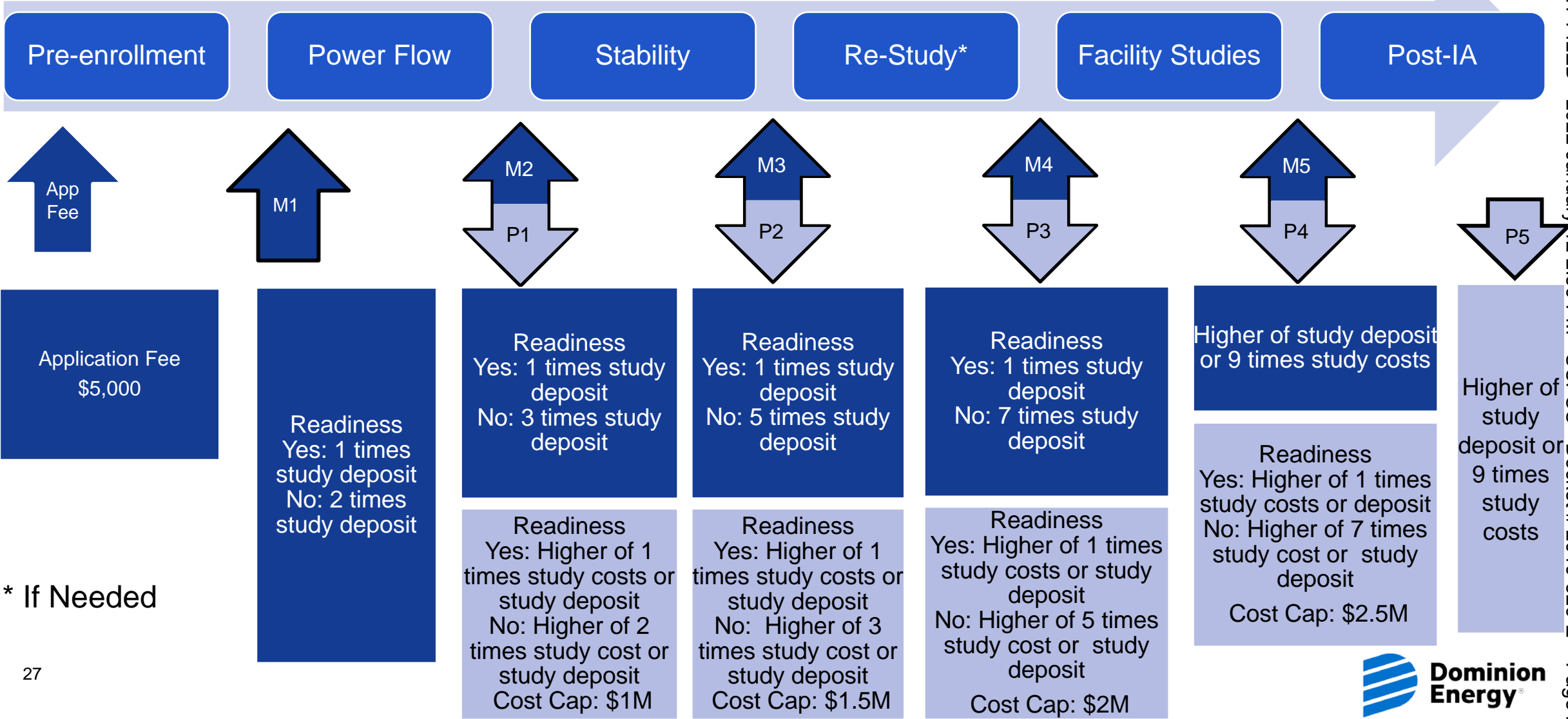


New Cluster Starts

# Milestones and Penalties

M1 to M5 Milestones

P1 to P5 Penalties

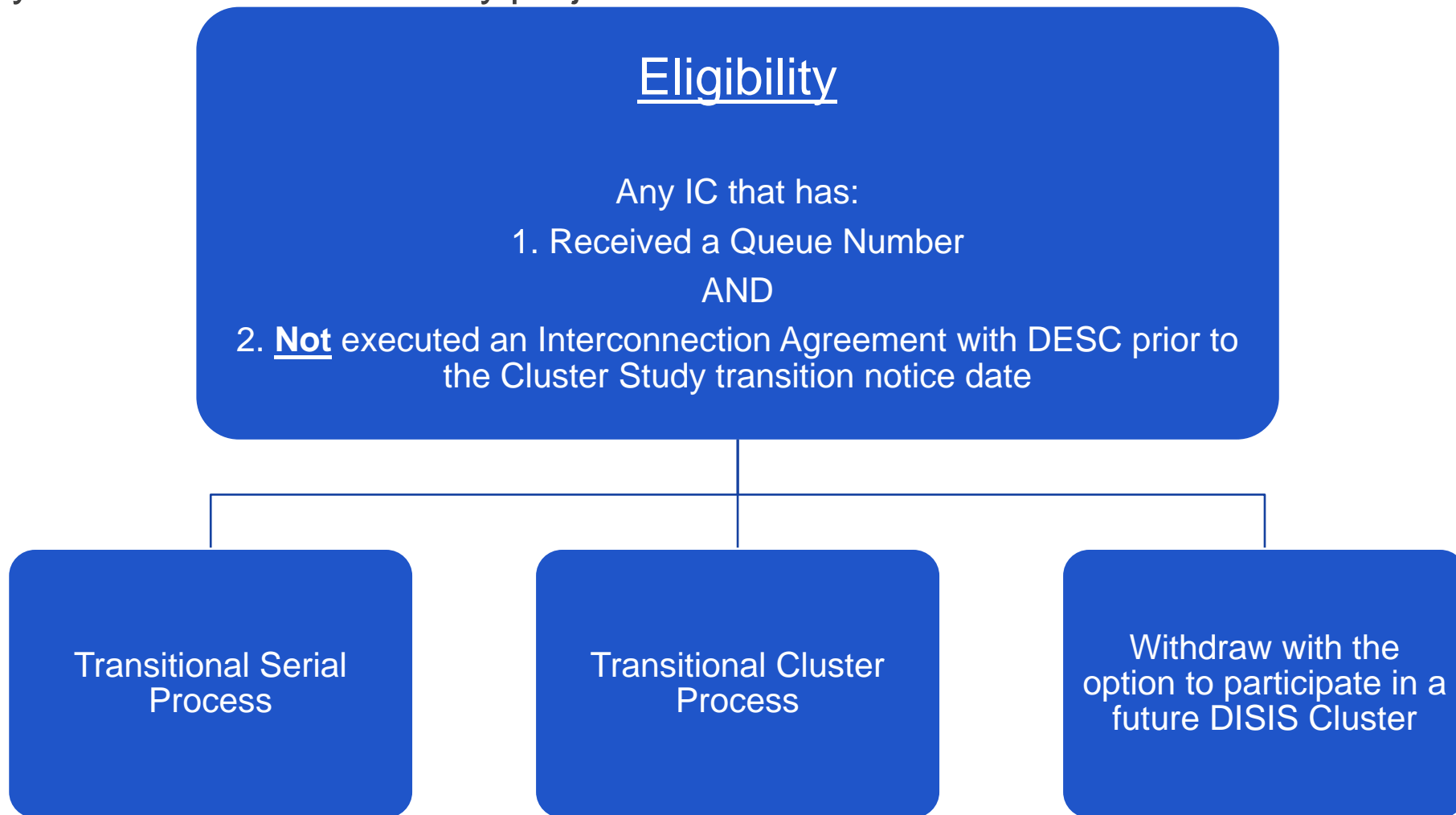


\* If Needed

# Transitional Study Process

# Transitional Procedures

**Goal:** Timely interconnection of ready projects



# Transitional Serial Process

## Eligibility

- An IC that has:
  - A final System Impact Study Report
  - An Interconnection Facilities Study Agreement executed by the Interconnection Customer prior to the Cluster Study transition notice date

## Enter

- IC executes a Transitional Serial Interconnection Facilities Study Agreement
- Provide a security equal to 100% Facilities and Network Upgrade costs
- Exclusive Site Control
- One of the following:
  - A contract with term of sale not less than 5 years
  - Inclusion in Resource Plan
  - Executed Provisional LGIA filed with FERC

## During

- DESC shall complete a Facility Study.
- Readiness Milestone 4 requirements shall not apply

## Exit

- Execution of interconnection agreement within 60 day of the publication of the final Interconnection Facilities Study Report.



# Transitional Cluster Study Process

## Eligibility

- An Interconnection Customer with an assigned Queue Position prior to the Cluster Study transition notice date
- (Optional) A Transitional Cluster Study general informational meeting open to all eligible Interconnection Customers

## Enter

- Execute a Transitional Cluster Study Agreement
- Choice of requesting either ERIS or NRIS
- Make a supplemental Interconnection Request study deposit (see slide 12)
- Exclusive Site Control or a cash deposit equal to \$20,000 plus \$500/MW
- One of the following
  - A contract with term of sale not less than 5 years
  - Inclusion in Resource Plan
  - Evidence the Interconnection Request was accepted by the Utility and its Queue Position was initially established at least 365 days prior to the DESC initiation of the Transitional Cluster Study
  - An executed Provisional LGIA filed with FERC that is not in suspension with
    - a) A commitment to construct the facility,
    - b) A Commercial Operation Date no later than 2024 and
    - c) A security deposit in addition to amount required
  - Security equal to three million dollars (\$3,000,000)

## Exit

- DESC undertakes customer engagement process
- DESC initiates a Phase 1 study under the Transitional Cluster Study Phase 1

# Transitional Cluster Study Process - Phase 1

## Enter

- The IC(s) have met the requirements for the transitional cluster process
- DESC undertakes customer engagement process
  - Ensure all the relevant data and information has been received (the “DISIS Verification Period”)
- DESC initiates a Phase 1 study under the Transitional Cluster Study Phase 1

## During

- DESC complete the Transitional Cluster Study Phase 1 consisting of a **power flow and voltage analysis**
- Identify the Interconnection Facilities and Network Upgrades
- DESC will issue the Transitional cluster Phase 1 report

## Exit

- DESC to provide a non-binding good-faith indicative estimate of cost responsibility and a non-binding good-faith estimated time to construct
- DESC will host a meeting to discuss the results of the report (Transitional cluster Phase 1 report meeting)
- Interconnection Customer proceeds with Phase 2 or withdrawal
  - Not allocated a Withdrawal Penalty

# Transitional Cluster Study Process - Phase 2

## Enter

- Each Interconnection Customer electing to proceed with Phase 2 of the Transitional Cluster Study must meet all of the following requirements:
- Provide security equal to three million dollars (\$3,000,000) inclusive of any security previously required
- Exclusive Site Control
- Provide one of the following:
  - A contract with term of sale not less than 5 years
  - Inclusion in Resource Plan
  - An executed Provisional LGIA filed with FERC that is not in suspension with
    - a) A commitment to construct the facility,
    - b) A Commercial Operation Date no later than 2024 and
    - c) A security deposit in addition to amount required
  - Additional Security equal to three million dollars (\$3,000,000)

## During

- DESC shall complete an updated power flow/voltage analysis (if necessary), stability analysis and short circuit analysis
  - Identify the Interconnection Facilities and Network Upgrades expected to be required
  - Provide a non-binding good-faith estimate of cost responsibility and a non-binding good-faith estimated time to construct
- DESC will issue the transitional cluster Phase 2 report
- Report shall identify each IC(s) estimated allocated cost for interconnection facilities and system upgrades that would be borne by the IC under a future interconnection agreement

## Exit

- DESC will host a meeting to discuss the results of the report (Transitional cluster Phase 2 report meeting)
- If an IC withdraws the interconnection request during this phase
  - Interconnection Customer shall be subject to the Withdrawal Penalty

# Transitional Cluster Study Process - Facilities Study

## Enter

- DESC shall determine whether re-study of the Transitional Cluster Generating Facilities is required prior to executing the Facilities Study Agreement and returning it to the Interconnection Customers
- Example: If an equal or higher priority Interconnection requests drops out of the queue

## During

- If re-study is required, DESC shall complete an updated power flow/voltage analysis (if necessary), stability analysis and short circuit analysis for the Interconnection Requests remaining in the Cluster
  - Identify the Interconnection Facilities and Network Upgrades expected to be required
  - Provide a non-binding good-faith estimate of cost responsibility and a non-binding good-faith estimated time to construct
- DESC will issue the Phase 3 report
- Report shall identify each IC(s) estimated allocated cost for interconnection facilities and system upgrades that would be borne by the IC under a future interconnection agreement

## Exit

- DESC will host a meeting to discuss the results of the report (Phase 3 Report Meeting)
- If an IC withdraws the interconnection request during this phase
  - Interconnection Customer shall be subject to the Withdrawal Penalty
- DESC shall notify Interconnection Customers in the Cluster in writing when no further re-studies are required and simultaneously provide the Interconnection Customer(s) a Facilities Study Agreement
- Readiness Milestone 4 requirement shall not apply to Interconnection Customers participating in the Transitional Cluster Study

# Transitional Cluster Study Process - LGIA

## Enter

- After the Facility Study Report is published, proceed with the LGIA
- Posting Readiness Milestone 5 shall not apply

## During

- All LGIA negotiations shall be completed and the LGIA executed
- A change in the Commercial Operation Date shall not delay the construction of Interconnection Facilities or Network Upgrades if such delay negatively affects lower or equal queued projects

## Exit

- Commercial Operation
- If the Interconnection Customer withdraws its Interconnection Request or its Generating Facility or otherwise does not reach Commercial Operation, the deposit is fully refundable once the final invoice for study costs and Withdrawal Penalty is settled

# Informational Interconnection Study

# Informational Study Process

## Enter

- An Interconnection Customer
  - Submissions of one site at two different voltage levels shall be treated as two requests
  - May submit multiple requests for different Generating Facility sizes or configurations at a single site, not to exceed five (5) studies at any given time.
- Interconnection Customer shall execute and return the Informational Interconnection Study Agreement to the Utility within ten (10) Business Days of receipt, including
  - an agreed upon scope of work,
  - the technical data, and
  - a \$10,000 deposit to the DESC

## During

- Shall preliminarily identify the potential Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service
- An Information Study is required for Provisional Service. The scope of the study will be determined on a case by case basis to support the request for provisional service.

## Exit

- DESC to provide a report to IC
- Solely for Informational Purposes
- Non-binding
- Does not confer any rights to the Interconnection Customer
  - Must still successfully apply to interconnect
- Aid a prospective IC in its business decisions related to interconnection of a Generating Facility prior to entering the Study Process

# **Provisional Interconnection Service**



# Provisional Interconnection Service

## Enter

- Customer requests an Informational Interconnection Study
- Prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities
- Potentially limited Interconnection Service at the discretion of DESC based on available studies
  - Limited by stability, short circuit, thermal, and/or voltage issues without modifications to the Generating Facility or Transmission System

## During

- Determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities are necessary to meet the requirements of NERC, or any applicable Regional Entity, are in place
- The maximum permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be studied and updated annually and all such studies shall be at the Interconnection Customer's expense

## Exit

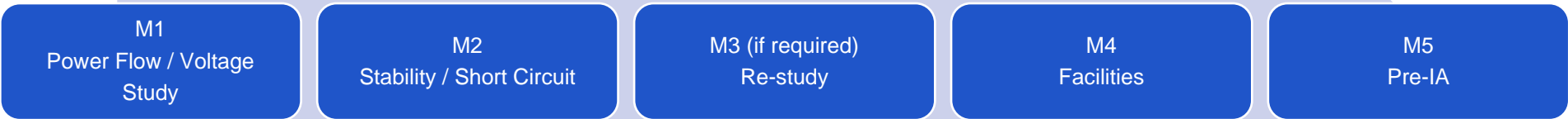
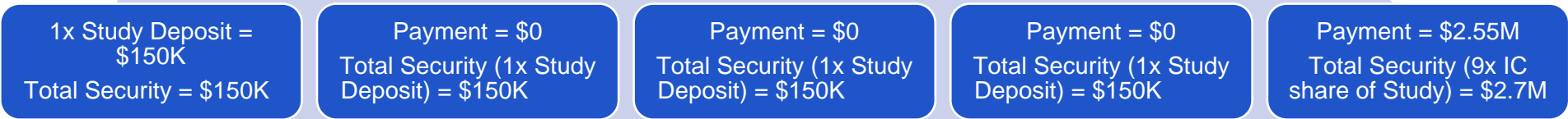
- DESC to provide a report to the IC
- IC assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities

# Examples

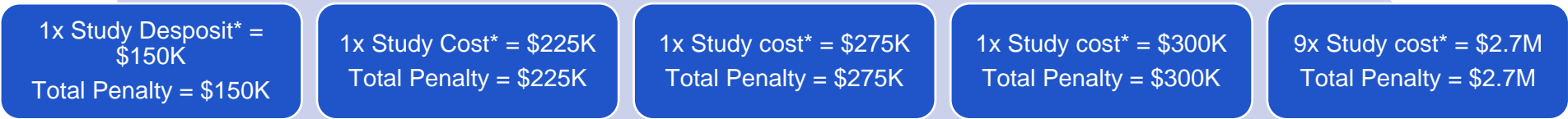
# Example 1 – Readiness

180 MW **Ready** Project,  
 Study Deposit=\$150,000  
 Actual Cumulative Study Costs After: Phase 1 = \$125K, Phase 2 = \$225K, Phase 3=\$275K, Phase 4 = \$300K

## Financial Security



## Withdrawal Penalty



COMMERCIAL OPERATION

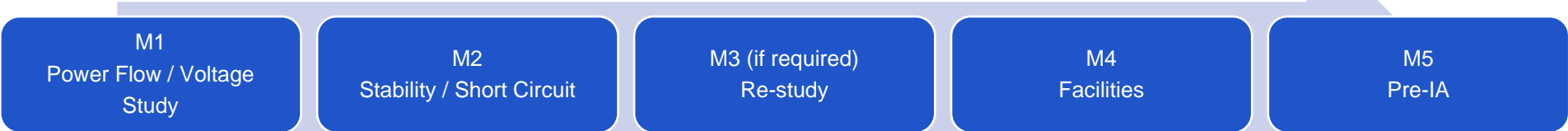
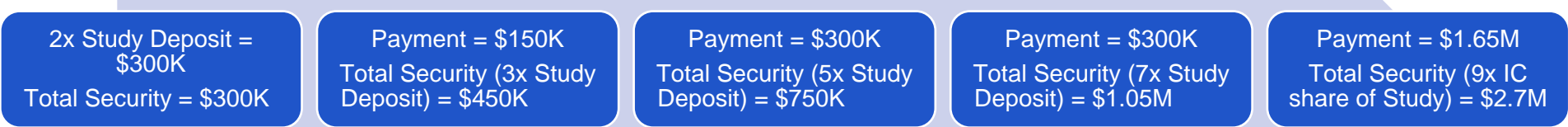
\*Higher of Study Deposit or Study Cost Multiplier



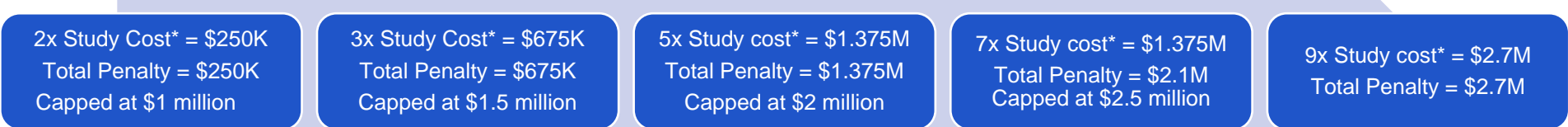
# Example 2 – Non-Readiness

180 MW **Non-Ready** Project,  
 Study Deposit=\$150,000  
 Actual Cumulative Study Costs After: Phase 1 = \$125K, Phase 2 = \$225K, Phase 3=\$275K, Phase 4 = \$300K

## Financial Security



## Withdrawal Penalty



COMMERCIAL OPERATION



# Network Upgrade Cost Allocation - Example

Transmission Line upgrade with a total cost of \$50 Million shared among six generators

	A	B	C	D	E	F	Total
Generator Rating (MW)	100	200	400	750	5	1	
MW Impact	4	6	10	20	1	0.5	41.5 MW
% of Cost Allocation = $\frac{\text{MW Impact}}{\text{Total MW}}$	9.64%	14.46%	24.10%	48.19%	2.41%	1.20%	100%
Allocation cost of upgrade in Millions = $\% \text{ Cost Allocation} \times \text{Upgrade Cost}$	\$4.82	\$7.23	\$12.05	\$24.10	\$1.20	\$0.60	\$50 Million

- All resources will pay the assigned upgrade cost based on percent of the total impact

# Stakeholder Feedback

- Please send your comments and feedback to email [etariffelectrictrans@dominionenergy.com](mailto:etariffelectrictrans@dominionenergy.com) using the format below

Category or Topic	Stakeholder	Issue / Comment	Proposal / Idea